iSolution
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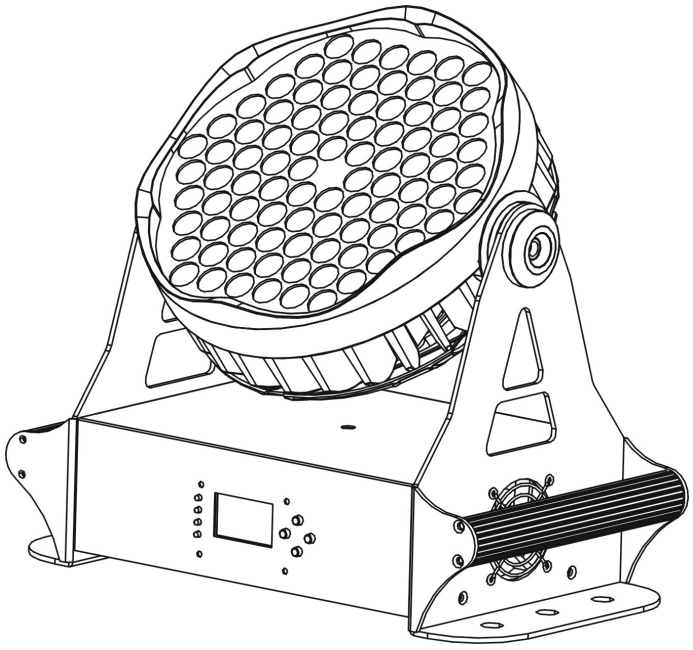
Stage Wash



SW-90 RGBW

User Guide

Please read these instructions carefully before use

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1. Safety Instruction

WARNING

Please read carefully the instruction, which includes important information about the installation, usage and maintenance.

Please keep this User Guide for future consultation. If you sell the unit to another user, be sure that they also receive this instruction booklet.

Important:

Damages caused by the disregard of this user manual are not subject to warranty.

The dealer will not accept liability for any resulting defects or problems.

- Unpack and check carefully that there is no transportation damage before using the unit.
- The unit is for indoor use only. Use only in a dry location.
- Do install and operate by operator.
- Use safety chain when fixes the unit. Don't handle the unit by taking its head only, but always by taking its base.
- The unit must be installed in a location with adequate ventilation, at least 50cm from adjacent surfaces.
- Be sure that no ventilation slots are blocked, otherwise the unit will be overheated.
- Before operating, ensure that the voltage and frequency of power supply match the power requirements of the unit.
- It's important to ground the yellow/green conductor to earth in order to avoid electric shock.
- Maximum ambient temperature TA : 40℃. Don't operate it where the temperature is higher than this.
- Don't connect the device to any dimmer pack.
- During initial start-up some smoke or smell may arise. This is a normal process and does not necessarily mean that the device is defective, it should decrease gradually.
- Make sure there are no flammable materials close to the unit while operating, as it is fire hazard.
- Look over power wires carefully, replace immediately if there is any damage.
- Unit surface temperature may reach up to 60℃. Don't touch the housing bare-hand during its operation.
- Never run on for a long time lest shortening lifespan.

- Avoid any inflammable liquids, water or metal objects entering the unit. Once it happen, cut off the mains power immediately.
- Do not operate in dirty and dusty environment, also cleaning fixtures regularly.
- Do not allow children to operate the fixture.
- Do not touch any wire during operation as there might be a hazard of electric shock.
- Avoid power wires together arounding other cables.
- Disconnect mains power before fuse/lamp replacement or servicing.
- Replace fuse only with the same type.
- In the event of serious operating problem, stop using the unit immediately.
- Never turn on and off the unit time after time.
- The housing, the lenses, or the ultraviolet filter must be replaced if they are visibly damaged.
- Do not open the unit as there are no user serviceable parts inside.
- Never try to repair the unit by yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center.
- Disconnect the mains power if the fixture is not used for a long time.
- Do use original packing materials once transport it again.
- To prevent or reduce the risk of electrical shock or fire, do not expose the unit to rain or moisture.
- Do not look directly at the LED light beam while the fixture is on.

Installation

The unit should be mounted via its metal hole on the bracket. Always ensure that the unit is firmly fixed to avoid vibration and slipping while operating. Always ensure that the structure to which you are attaching the unit is secure and is able to support a 10 times weight of the unit.

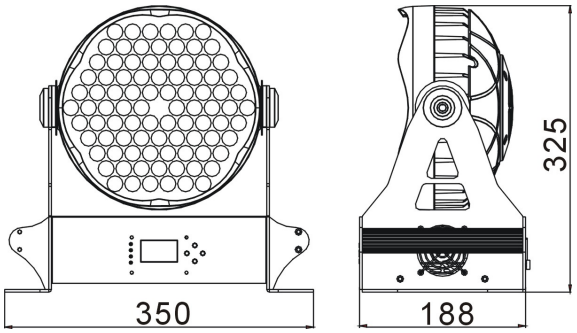
Product Items

- User manual
- Power cable
- 4 x screws
- 4 x screw nuts
- Hanging board

2. Technical Specification

- DMX Channels: 4/5/7 channels
- Thermal sensor ensures the unit working at proper temperature
- Great built-in lighting shows under Master/Slave mode triggered by music
- The sound sensitivity can be adjust in the menu of LCD display

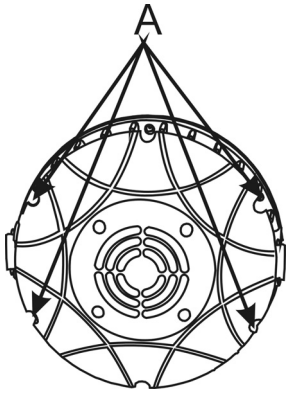
- **Light Source:** total: 3W LED x 90pcs
  Red: 18pcs, Green: 24pcs, Blue: 24pcs, White: 24pcs
- **Voltage：** AC 230-250V~50/60Hz
- **Power consumption:** 291W
- **Fuse:** T 6.3A
- **Beam Angle:** 15°/25°
- **Dimension:** 350 x 188 x 325 mm
- **Weight:** 7.2 kg

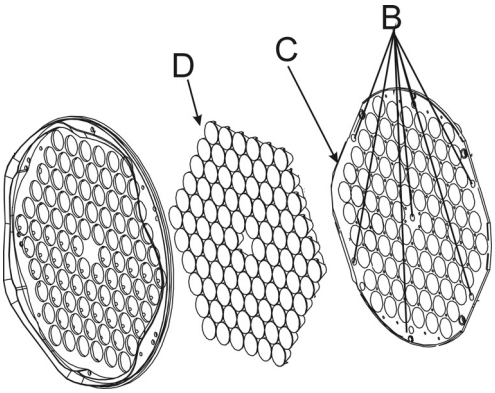


3. Change Beam Angle

If you want to change the beam angle of the fixture, you can change lens as below:

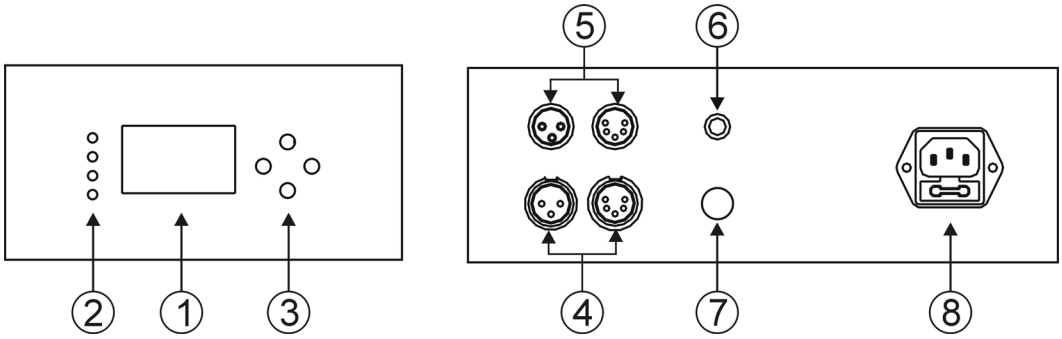
1. Cut off the mains power, unscrew the screws A, take off the lens board.
2. Unscrew the screws B, move away the lens base C
3. Change the lens D
4. Screw all the screws.





4. How To Set The Unit

4.1 Control Panel



① Display

To show the various menus and the selected functions

② LED

DMX	On	DMX input present
MASTER	On	Master Mode
SLAVE	On	Slave Mode
SOUND	Flashing	Sound activation

③ Button

MENU	To select the programming functions
▲ UP	To go forward in the selected functions
▼ DOWN	To go backward in the selected functions
ENTER	To confirm the selected functions

④ DMX output

For DMX512 link, use 3/5-pin XLR plug cable to link the next unit.

⑤ DMX input

For DMX512 link, use 3/5-pin XLR plug cable to input DMX signal

⑥ Microphone

Receive music for the sound active.

⑦ Only for remote control

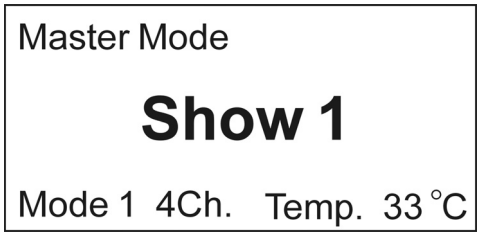
By connect to the 1/4” microphone jack to control the unit for Stand by, Function and Mode function.

⑧ Mains input

Connect to supply mains power.

4.2 Power On Display

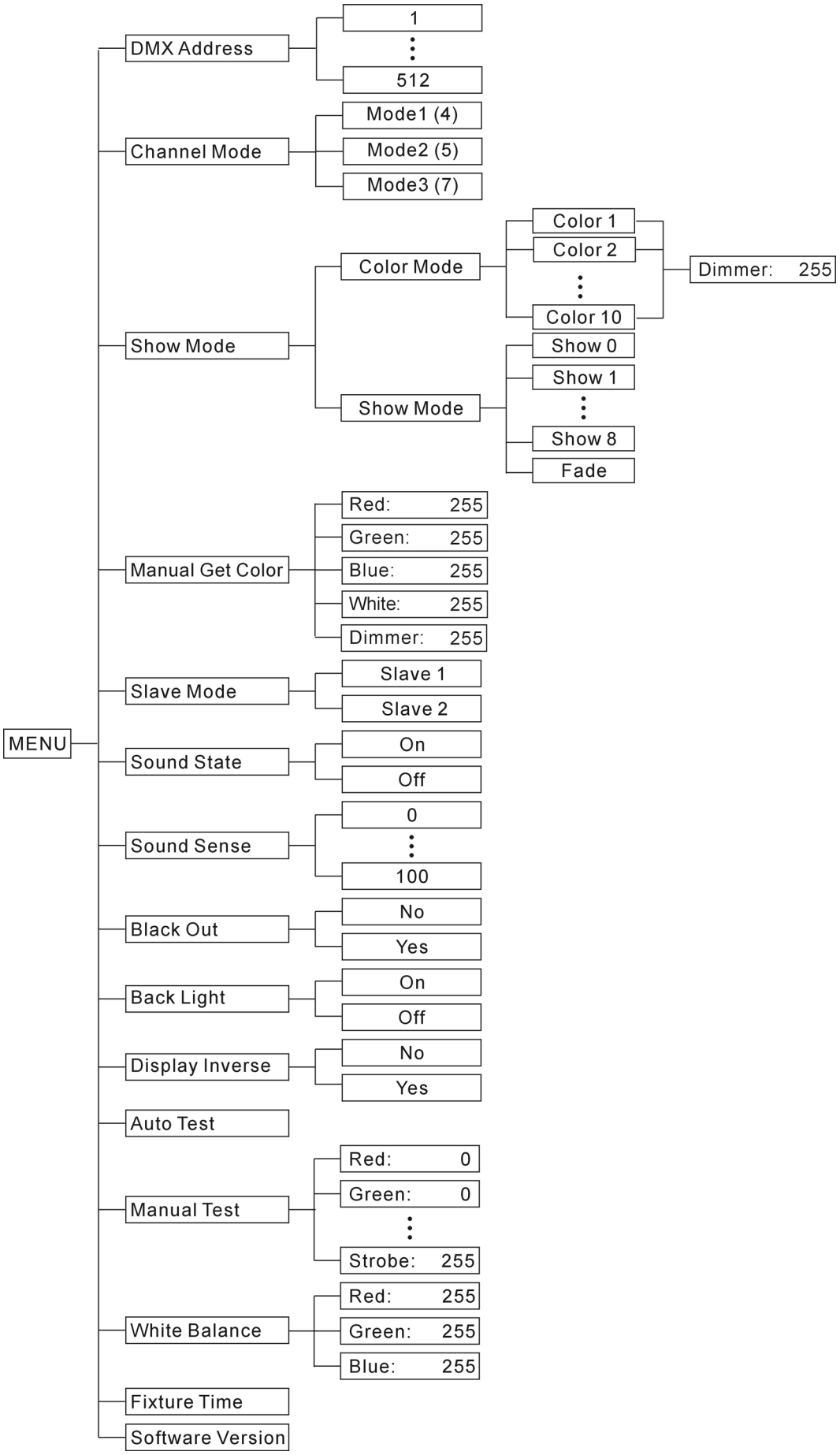
Every time you turn on the unit, it will run built-in program to reset all motors to their home position, the display will show type and software version, you may hear some noises for about 20 seconds. It will show warning sign if it goes wrong during resetting and you can press the MENU button to view the error information. After that the unit will be ready to receive DMX signal and the display will show as below.



Master Mode	Present master/slave mode
Show 1	Present show
Mode 1 4Ch..	Present channel mode is mode 1 (4 channels mode)
Temp. 33˚C	Present detected temperature is 33˚C

4.3 Main Function

Turn on the unit, press **MENU** button into menu mode, press **UP** and **DOWN** button until the required one is shown on the monitor. Select the function by **ENTER** button. Use **UP** and **DOWN** button to choose the submenu, press the **ENTER** button to store and automatically return to the last menu. Press **MENU** button or idling one minute to exit menu mode.
Hold **MENU** button to quit menu mode, the unit will run the built-in program you selected.
The main functions are shown below:


MENU
DMX Address
1
512
Channel Mode
Mode1 (4)
Mode2 (5)
Mode3 (7)
Show Mode
Color Mode
Color 1
Color 2
Color 10
Dimmer: 255
Show Mode
Show 0
Show 1
Show 8
Fade
Manual Get Color
Red: 255
Green: 255
Blue: 255
White: 255
Dimmer: 255
Slave Mode
Slave 1
Slave 2
Sound State
On
Off
Sound Sense
0
100
Black Out
No
Yes
Back Light
On
Off
Display Inverse
No
Yes
Auto Test
Manual Test
Red: 0
Green: 0
Strobe: 255
White Balance
Red: 255
Green: 255
Blue: 255
Fixture Time
Software Version

DMX Address

Select **DMX Address**, press ENTER button to confirm, the present address will blinking on the display, use UP and DOWN button to adjust the address from **0** to **512**, press ENTER button to store. Press MENU button back to the last menu or idling one minute to exit menu mode.

Channel Mode

Select **Channel Mode**, press ENTER button to confirm, present channel mode will blinking on the display, use UP and DOWN button to select **Mode1** (4 channels mode) or **Mode 2** (5 channels mode) or **Mode 3** (7 channels mode), press ENTER button to store. Press MENU button back to the last menu or idling one minute to exit menu mode.

Show Mode

Select **Show Mode**, press ENTER button to confirm, present show will blinking on the display, use UP and DOWN button to select **Color Mode** or **Show Mode**.

Color Mode

Select **Color Mode**, press ENTER button to confirm, use UP and DOWN button to select **color 1, color 2 …** or **color 10**, press ENTER button to confirm.

Dimmer

Once select a color, **Dimmer** will blinking on the display, use UP and DOWN button to adjust the value, press ENTER button to store. Press MENU button back to the last menu or idling one minute to exit menu mode.

Show Mode

Select **Show Mode**, press ENTER button to confirm, use UP and DOWN button to select **show 1, show 2 … show 10** o**r fade**, press ENTER button to confirm. Press MENU button back to the last menu or idling one minute to exit menu mode.

Manual Get Color

Select **Manual Get Color**, press ENTER button to confirm, Use UP and Down button to

select **Red** or **Green** or **Blue** or **White** or **Dimmer**.

Red

Select **Red**, press ENTER button to confirm, use UP and DOWN button to adjust red brightness (**0 -255**), press ENTER button to confirm. Press MENU button back to the last menu or idling one minute to exit menu mode.

Green

Select **Green**, press ENTER button to confirm, use UP and DOWN button to adjust green brightness (**0 -255**), press ENTER button to confirm. Press MENU button back to the last menu or idling one minute to exit menu mode.

Blue

Select **Blue**, press ENTER button to confirm, use UP and DOWN button to adjust blue brightness (**0 -255**), press ENTER button to confirm. Press MENU button back to the last menu or idling one minute to exit menu mode.

White

Select **White**, press ENTER button to confirm, use UP and DOWN button to adjust White brightness (**0 -255**), press ENTER button to confirm. Press MENU button back to the last menu or idling one minute to exit menu mode.

Dimmer

Select **Dimmer**, press ENTER button to confirm, use UP and DOWN button to adjust brightness (**0 -255**), press ENTER button to confirm. Press MENU button back to the last menu or idling one minute to exit menu mode.

Slave Mode

Select **Slave Mode**, press ENTER button to confirm, present mode will blinking on the display, use UP and DOWN button to select **Slave 1** or **Slave 2**, press ENTER button to store. Press MENU button back to the last menu or idling one minute to exit menu mode.

Sound State

Select **Sound State**, press ENTER button to confirm, present state will blinking on the display, use UP and DOWN button to select **on** (sound control on) or **off** (sound control off), press ENTER button to store. Press MENU button back to the last menu or idling one minute to exit menu mode.

Sound Sense

Select **Sound Sense**, press ENTER button to confirm, present sound sense will blinking on the display, use UP and DOWN button adjust the sound sensitively from **1** to **100**, press ENTER button to store. Press MENU button back to the last menu or idling one minute to exit menu mode.

Black Out

Select **Black Out**, press ENTER button to confirm, present mode will blinking on the display, use UP and DOWN button to select the **Yes** (blackout) or **No** (bright) mode, press ENTER button to store. Press MENU button back to the last menu or idling one minute to exit menu mode.

Back Light

Select **Back Light**, press ENTER button to confirm, present mode will blinking on the display, use UP and DOWN button to select the **on** (back light on) or **off** (back light off 1 minute after auto show) mode, press ENTER button to store. Press MENU button back to the last menu or idling one minute to exit menu mode.

Display Inverse

Select **Display Inverse**, press ENTER button to confirm, present mode will blinking on the display, use UP and DOWN button to select the **Yes** (display inverse) or **No** (normal) mode, press ENTER button to store. Press MENU button back to the last menu or idling one minute to exit menu mode.

Auto Test

Select **Auto Test**, press ENTER button to confirm, the display will show **Auto Test…** and the unit will run self-test by built-in program. To go back to the functions press the

MENU button.

Manual Test

Select **Manual Test**, press ENTER button to confirm, **pan** will blinking on the display, use UP and DOWN button to select **Pan** or **Tilt or Red** or **Green** or **Blue** or **White** or **Strobe** or **Dimmer**.

Red

Select **Red**, press ENTER button to confirm, use UP and DOWN button to adjust red brightness (**0 -255**), press ENTER button to confirm. Press MENU button back to the last menu or idling one minute to exit menu mode.

Green

Select **Green**, press ENTER button to confirm, use UP and DOWN button to adjust green brightness (**0 -255**), press ENTER button to confirm. Press MENU button back to the last menu or idling one minute to exit menu mode.

Blue

Select **Blue**, press ENTER button to confirm, use UP and DOWN button to adjust blue brightness (**0 -255**), press ENTER button to confirm. Press MENU button back to the last menu or idling one minute to exit menu mode.

White

Select **White**, press ENTER button to confirm, use UP and DOWN button to adjust White brightness (**0 -255**), press ENTER button to confirm. Press MENU button back to the last menu or idling one minute to exit menu mode.

Dimmer

Select **Dimmer**, press ENTER button to confirm, use UP and DOWN button to adjust brightness (**0 -255**), press ENTER button to confirm. Press MENU button back to the last menu or idling one minute to exit menu mode.

Strobe

Select **Strobe**, press ENTER button to confirm, use UP and DOWN button to adjust strobe speed (**0 -255**), press ENTER button to confirm. Press MENU button back to the last menu or idling one minute to exit menu mode.

White Balance

Select **Manual Test**, press ENTER button to confirm, **Red** will blinking on the display, use UP and DOWN button to select **Red** or **Green** or **Blue**.

Red

Select **Red**, press ENTER button to confirm, use UP and DOWN button to adjust red brightness (**125 -255**), press ENTER button to confirm. Press MENU button back to the last menu or idling one minute to exit menu mode.

Green

Select **Green**, press ENTER button to confirm, use UP and DOWN button to adjust green brightness (**125 -255**), press ENTER button to confirm. Press MENU button back to the last menu or idling one minute to exit menu mode.

Blue

Select **Blue**, press ENTER button to confirm, use UP and DOWN button to adjust blue brightness (**125 -255**), press ENTER button to confirm. Press MENU button back to the last menu or idling one minute to exit menu mode.

Fixture Time

Select **Fixture Time,** press ENTER button to confirm, the display will show the number of working hours of the unit. To go back to the functions press the MENU button.

Software Version

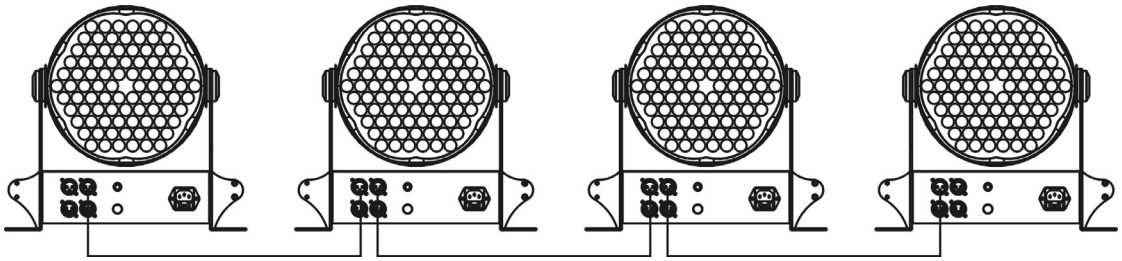
Select **Software Version**, press ENTER button and the software version will shown on the display. To go back to the functions press the MENU button.

5. How To Control The Unit

You can operate the unit in three ways:

1. By master/slave built-in preprogram function
2. By easy controller
3. By universal DMX controller

5.1 Master/Slave Built-in Preprogram Function



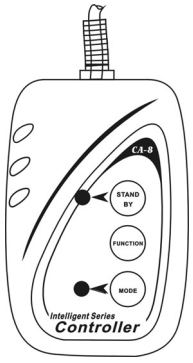
Linking the units as the diagram, select show for the first unit (master) and set other units to slave1 or slave 2 via menu. The master unit will control the other units to give an automatic, sound activated, synchronized light show. This function is good when you want an instant show.

2-light show

In slave mode, slave 1 means the unit run as the master unit and slave 2 means 2-light show. In order to create a great light show, you can set slave 2 on the second unit to get contrast movement to each other, even if you have two units only.

5.2 Easy Controller

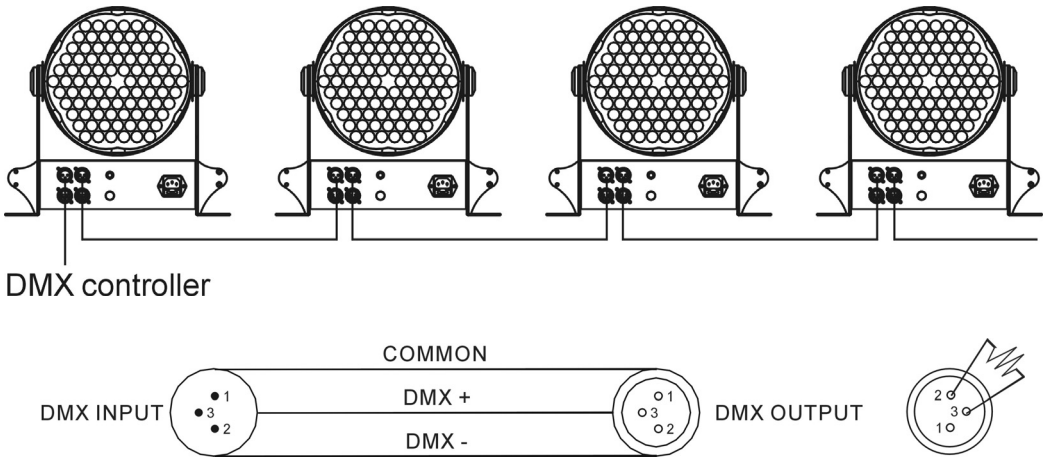
The easy remote control is used only in master/slave mode. By connecting to the 1/4” microphone jack of the first unit, you will find that the remote controller on the first unit will control all the other units for Stand by, Function and Mode selection.



Stand By	Blackout the unit			
Function	1. Sync. Strobe 2. Async strobe 3. Sound Strobe	Select Color 1-10	Address Dimmer 0-255	User Color
Mode	Sound (LED OFF)	LED On	LED Slow blinking	LED Fast blinking

5.3 Universal DMX Controller

5.3.1 Connection



ATTENTION

Termination reduces signal errors and to avoid signal transmission problems and interference. It is always advisable to connect a DMX terminal (Resistance 120 ohm 1/4W between pin2 (DMX-) and pin3 (DMX+) of the last fixture).

1. If you using a controller with 5 pins DMX output, you need to use a 5 to 3 pin adapter-cable.
2. At last unit, the DMX cable has to be terminated with a terminator. Solder a 120 ohm 1/4W resistor between pin 2(DMX-) and pin 3(DMX+) into a 3-pin XLR-plug and plug it in the DMX-output of the last unit.
3. Connect the unit together in a `daisy chain` by XLR plug from the output of the unit to the input of the next unit. The cable can not branched or split to a `Y` cable. DMX 512 is a very high-speed signal. Inadequate or damaged cables, soldered joints or corroded connectors can easily distort the signal and shut down the system.
4. The DMX output and input connectors are pass-through to maintain the DMX circuit,

when power is disconnected to the unit.

5. Each lighting unit needs to have an address set to receive the data sent by the controller. The address number is between 0-511 (usually 0 & 1 are equal to 1).
6. The end of the DMX 512 system should be terminated to reduce signal errors.
7. 3 pin XLR connectors are more popular than 5 pin XLR.
   3 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+)
   5 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+)
   Pin 4/5: Not used.

5.3.2 Channel Mode Setting

Enter menu mode, select ***Channel Mode***, press ENTER button to confirm, present channel mode will blinking on the display, use UP and DOWN button to select **Mode1** (4 channels mode) or **Mode 2** (5 channels mode) or **Mode 3** (7 channels mode), press ENTER button to store. Press MENU button back to the last menu or idling one minute to exit menu mode.

5.3.3 Address Setting

If you use a universal DMX controller to control the units, you have to set DMX address from 1 to 512 so that the units can receive DMX signal.

Press MENU button to enter menu mode, select ***DMX Address***, press ENTER button to confirm, the present address will blinking on the display, use UP and DOWN button to adjust the address from 0 to 512, press ENTER button to store. Press MENU button back to the last menu or idling one minute to exit menu mode.

Please refer to the following diagram to address your DMX512 channel for the first 4 units.

Channel Mode	Unit 1	Unit 2	Unit 3	Unit 4
4 channels	1	5	9	13
5 channels	1	6	11	16
7 channels	1	8	15	22

5.3.4 DMX 512 Configuration

Please refer to below configurations to control the fixtures

DMX 512 configuration

Mode 1				Mode 2				
CH 1	CH2	CH3	CH4	CH 1	CH2	CH3	CH4	CH5
Red	Green	Blue	White	Red	Green	Blue	White	Dimmer
255 100% 0 0%	255 100% 0 0%	255 100% 0 0%	255 100% 0 0%	255 100% 0 0%	255 100% 0 0%	255 100% 0 0%	255 100% 0 0%	255 100% 0 0%

DMX 512 configuration(Mode 3)

CH 1	CH2	CH3	CH4	CH5	CH6	CH7
Red	Green	Blue	White	Color	Dimmer	Strobe
255 100% 0 0%	255 100% 0 0%	255 100% 0 0%	255 100% 0 0%	247-255 Color 32 239-246 Color 31 231-238 Color 30 225-230 Color 29 216-224 Color 28 208-215 Color 27 202-207 Color 26 194-201 Color 25 186-193 Color 24 177-185 Color 23 171-176 Color 22 163-170 Color 21 155-162 Color 20 148-154 Color 19 140-147 Color 18 132-139 Color 17 124-131 Color 16 118-123 Color 15 109-117 Color 14 101-108 Color 13 093-100 Color 12 087-092 Color 11 078-086 Color 10 070-077 Color 9 064-069 Color 8 056-063 Color 7 048-055 Color 6 039-047 Color 5 033-038 Color 4 025-032 Color 3 017-024 Color 2 008-016 Color 1 000-007 Off	255 100% 0 0%	248-255 Open 240-247 Random Strobe 232-239 Open 190-231 Slow Close Fast Open 182-189 Open 140-181 Slow Open Fast Close 132-139 Open ⚡⚡⚡ 16-131 ⚡⚡ ⚡ 8-15 Open 0-7 Off

6. Troubleshooting

Following are a few common problems that may occur during operation. Here are some suggestions for easy troubleshooting:

A. The unit does not work, no light and the fan does not work

1. Check the connection of power and main fuse.
2. Measure the mains voltage on the main connector.
3. Check the power on LED.

B. Not responding to DMX controller

1. DMX LED should be on. If not, check DMX connectors, cables to see if link properly.
2. If the DMX LED is on and no response to the channel, check the address settings and DMX polarity.
3. If you have intermittent DMX signal problems, check the pins on connectors or on PCB of the unit or the previous one.
4. Try to use another DMX controller.
5. Check if the DMX cables run near or run alongside to high voltage cables that may cause damage or interference to DMX interface circuit.

C. Some units don't respond to the easy controller

1. You may have a break in the DMX cabling.
2. Check the LED for the response of the master/ slave mode signal.

D. No response to the sound

1. Make sure the unit does not receive DMX signal.
2. Check if the sound sensitively is too low.

E. One of the channels is not working well

1. The cable connected to the PCB may broken.

7. Fixture Cleaning

The cleaning of internal and external optical lenses and/or mirrors must be carried out periodically to optimize light output. Cleaning frequency depends on the environment in

which the fixture operates: damp, smoky or particularly dirty surrounding can cause greater accumulation of dirt on the unit's optics.

- Clean with soft cloth using normal glass cleaning fluid.
- Always dry the parts carefully.
- Clean the external optics at least every 20 days. Clean the internal optics at least every 30/60 days.

EC - Declaration of Conformity

We declare that our products (lighting equipments) comply with the following specification and bears CE mark in accordance with the provision of the Electromagnetic Compatibility (EMC) Directive 89/336/EEC.

EN 55103-1:1996, EN 55103-2:1996, EN 61000-3-2:2006
EN 61000-3-3:1995+A1:2001+A2:2005

&

Harmonized Standard

EN 60598-2-17:1989+A2:1991, EN 60598-1:2008
EN62471:2008

Safety of household and similar electrical appliances
Part 1: General requirements

Innovation, Quality, Performance